

NIMAAYA



LASER ASSISTED HATCHING

- TOPICS
- How does Assisted Hatching work?
 - Who should be treated with Assisted Hatching
 - Your treatment options explained



About this booklet

This series of booklets has been developed and written with the support of leading fertility clinics across Australia, and AccessAustralia — a national organization that provides numerous services for people having difficulty conceiving. We also acknowledge the many people who spoke openly about their own experiences with assisted conception in order to help others experiencing a similar journey. Merck Serono thanks the many individuals, couples and Australian Healthcare Professionals, including fertility specialists, specialist nurses and psychologists who shared their knowledge and expertise during the production of these booklets.

Important notice: The information provided in this booklet does not replace any of the information or advice provided by a medical practitioner and other members of your healthcare team. Your doctor will determine the best medications and course of action for you based on your requirements and conditions.

Prescription medicines have benefits and risks. Use all medications strictly as directed by your doctor and raise any questions or concerns with them before, during or after using prescribed medicines. If you experience side effects consult your doctor.

Full information regarding the medicines listed in this booklet, including how they are taken and side effects, is available from the Consumer Medicine Information (CMI) sheets. These can be found at the TGA website (www.tga.gov.au) for Australian residents and the medsafe website (www.medsafe.govt.nz) for New Zealand residents.

Medication availability and funding criteria may differ between Australia and New Zealand.

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Laser Assisted Hatching

Reason for Assisted Hatching

An embryo is a collection of cells which is encased within a shell called the zona pellucida. This is an important part of the embryo, especially in the early stages but this changes as time goes on. It becomes thinner and eventually breaks down which enables the cells to escape and implant themselves in the lining of the uterus.

This sounds relatively straightforward but things can go wrong. If the zona pellucida is thicker than normal or fails to break down then implantation will not occur. This means no pregnancy either.



If this is the outcome of an IVF/ICSI cycle then it is said to have failed. This is where help may be needed with 'hatching' out the embryo so that it manages to implant itself in the uterus and increase the chance of pregnancy. Assisted hatching is a procedure in which a hole is made in the Zona Pellucida of the embryo which enables it to escape and then implant itself. Another way of doing this is to reduce the thickness of the Zona Pellucida.

Laser-assisted hatching can turn around a history of failure for Embryos to implant themselves in the uterine wall. Assisted hatching is used to help the embryo hatch from its protective outer shell, the zona pellucida, and promote implantation in the uterine wall after embryo transfer.

This technique is offered to couples who have been unlucky with IVF or ICSI treatment. They may have undergone repeated cycles of either of these but with no success and are wondering what to do next.

How does Assisted Hatching work?

Before an embryo can attach to the wall of the womb, it has to break out or 'Hatch' from its outer layer, the Zona Pellucida. It has been suggested that making a hole in, or thinning, this outer layer may help embryos to hatch, which may increase the chances of pregnancy.

However, assisted hatching does not improve the quality of embryos.

Who should be treated with Assisted Hatching?

The most commonly used indications for Assisted Hatching with an in vitro fertilization case are:

- Age factor—the female partner is older than 35
- Egg quantity and quality factor—cases in which the woman's day 3 follicle stimulating hormone (FSH) level is elevated, or with a low AMH level or low antral follicle count
- Embryo quality factor - cases with poor quality embryos (excessive fragmentation or slow rates of cell division)
- Zona Factor—cases with embryos that have a thick outer shell (zona pellucida)
- Previous IVF failure—cases that have had one or more previous failed IVF cycles
- During transfer of frozen Embryos

Pregnancy rates

Pregnancy rates for in vitro fertilization procedures with assisted hatching have been shown in some published studies to be higher than for IVF without hatching. There is an improvement in the rate of embryo implantation and pregnancy in our IVF clinic with the use of assisted hatching. Apparently, this benefit is not seen in all IVF programs.

What are the risks of Assisted Aatching?

Current research suggests that this treatment is no more likely to cause an abnormality to the baby than IVF without assisted hatching. As it is only the outer layer that is affected by this procedure, the embryo should remain unharmed.

There is always some risk of damage with any procedure of this type.

If you have more than one embryo transferred, this may increase the risk of multiple births.

Looking for more information?

other booklets in the Pathways to Parenthood series are available at: www.nimaaya.com

- Endometriosis
- Overcoming male Infertility
- Female infertility & assisted reproductive technology (Art)
- Your step by step guide to treating Infertility
- Polycystic ovary syndrome (PCOS)
- Ovulation Induction (OI)
- Intra Uterine Insemination (IUI)
- In Vitro fertilisation (IVF) & Intra-cytoplasmic sperm injection (iCsi)
- Managing the stress of Infertility
- Azoospermia
- Intrauterine Insemination
- Male Infertility
- Oocyte Vitrification
- Semen Analysis
- Why Investigate for Infertility



How can you choose the right IVF centre?

Choosing the right fertility clinic is crucial to make sure that your dream of parenthood is on the right path. While every failed IVF cycle can be a major psychological and financial setback, the abundance of fertility clinics leads to confusion and frustration.

But do not lose hope. There are a few easy checks that any couple can do to help them find the fertility clinic that is right for them.

Facilities

Nimaaya has a full time Embryologist with a Masters in Clinical Embryology, armed with 10 years of intensive experience.

We believe in delivering the best and the latest technology at no added cost to our patients, who have the right to the best medical care, even if they don't live in the metros.

Services

Our centres provide treatment for all types of cases. Our Endoscopy department is capable of Endoscopic treatment of cases like Fibroids, endometriosis and Poly Cystic Ovaries.

Dr. Kishore Nadkarni is our Male Infertility specialist, with 30 years of experience in the field. We provide TESA, PESA and TESE for cases of Azoospermia (NIL SPERM).

Our centre is one of the most cost-effective centres in India with unparalleled success rates.